

Case No. UC0362USNA
Application No. 10/802,704

Applicants' Remarks

Election/Restriction

Applicants affirm the election of Group I, claims 1-8, made in a telephone conference with the Examiner and Applicants' counsel Mary Ann Capria. This election is affirmed without traverse.

Status of the Application

Claims 1-8 are pending in the application. Claims 1-8 are rejected under 35 USC 112, second paragraph, under the nonstatutory doctrine of obviousness-type double patenting, and in the alternative under 35 USC 102/103.

Since the nonstatutory double patenting rejection is provisional, the Applicants will address that rejection with an appropriate response once claims have issued in this application or one of the co-pending applications cited in the office action.

Claim Rejections – 35 USC 112

Claims 1, 2, 5, 7 and 8 have been amended to address the rejections made under 35 USC 112, second paragraph, by clarifying the Markush group language in those claims. Applicants submit that these rejections have been overcome by the foregoing amendments and respectfully request that the rejections be withdrawn.

Claim Rejections – 35 USC 102 or, alternatively, 103

EP 0593111

Claims 1-8 stand rejected under 35 USC 102(b) as anticipated by or, in the alternative, under 35 USC 103(a) as obvious over EP 0593111. Claim 1 is amended to specify that the composition is electrically conductive. Since all the remaining claims depend directly or indirectly from claim 1, this limitation is present in all pending claims. This limitation is supported in the application at page 1, lines 8-11, and by the definition of the claimed composition as comprising a buffer layer in an electronic device. A buffer layer is conductive, and in this case facilitates the injection of holes (positive charges) into the electroluminescent layer (please see page 1, lines 29-30). The reference, on the other hand, is directed to an antistatic coating for electrically insulating materials such as water resistant resins (EP 0593111, page 3, lines 9-14). Since the claims under review, as amended, contain a limitation not present in the reference, the reference is not disabling on novelty grounds.

Case No. UC0362USNA
Application No. 10/802,704

It would not have been obvious to one possessing ordinary skill in the art to use compositions of the invention as buffer layers in electronic devices based on a reading of '111 because this reference discloses polythiophene as an antistatic agent forming the outer layer of electrically insulating materials. The '111 references also teaches, at page 2, lines 30-32, that the conductivity of an antistatic layer, such as that disclosed therein, depends upon the presence of moisture. This teaches strongly away from using such materials in electronic devices such as OLEDs, and in fact actively discourages their use as conductive materials, because moisture is highly damaging to device components.

For the foregoing reasons, Applicants respectfully submit that these rejections based upon the '111 reference should be withdrawn.

Pickup Article

Pickup, et al., *J. New Mat. Electrochem. Systems* 3, 21-26 (2000) (hereafter, "Pickup") identifies PEDOT/PSS and PEDOT/Nafion[®] as having utility in supercapacitors or as fuel cell catalyst supports (page 24, § 3.3 and page 25, § 3.4). Pickup does not disclose an electronically conductive composition useful as, e.g., a buffer layer comprising a polydioxothiophene and at least one colloid-forming polymeric acid. The present compositions also display advantages over the prior art, which advantages provide strong evidence that it would not have been obvious to apply a polydioxothiophene-polyacid dispersion as a conductive polymer layer in a display device. One advantage (page 5, line 32 to page 6, line 2 of the application) is that the minute, electrically conductive particles are stable in the aqueous medium without forming a separate phase over a long time, and remain stable (do not redisperse) once the medium is dried into a film. OLEDs provided with claimed buffer layers have been found to have enhanced lifetimes and efficiencies (page 16, lines 9-11). The reduced acidity or neutrality of the conductive composition as claimed (see page 28, line 27 to page 29, line 7) avoids damage to formulation equipment and OLED components that may be caused by higher acidity films such as PEDOT/PSSA.

Nothing in Pickup teaches or suggests that Pickup's disclosure, or the disclosure as modified in some manner, would result on OLED buffers as claimed, or conductive polymers having the advantages enumerated. There is no motivation in Pickup for modifying the disclosure in some way to arrive at the claimed compositions. Accordingly Applicants respectfully submit that this rejection should be withdrawn.

Case No. UC0362USNA
Application No. 10/802,704

Conclusion

Applicants respectfully submit that the foregoing amendments in light of the remarks presented above overcome the rejections in the January 23, 2006 office action and place the pending claims in condition for allowance. A notice of allowance is earnestly solicited.

Should the Examiner have questions about the content of this paper or the status of the application, the Examiner is invited to call Applicants' counsel at the telephone number listed below.

Respectfully submitted,



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